UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,374	02/15/2002	Mihaela Van Der Schaar	US 020044	1300

24737　　7590　　08/25/2006	EXAMINER
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ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *24 April 2006*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *21-40* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *21-40* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 21-40 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 38-40 are rejected under 35 U.S.C. 101 because the claims do not meet

the 35 U.S.C. 101 requirements (the claims have improper language regarding the

computer readable medium). Please see the USPTO "Interim Guidelines for

Examination of Patent Applications for Patent Subject Matter Eligibility" in the Official

Gazette notice of 22 November 2005, Annex IV, page 53. The examiner further

suggests changing "includes" in line 1 of claim 38 to "encoded with" to meet the 101

Interim Guidelines (page 53, lines 7-11).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 21-27, 29-32, 35-36, 38, and 40 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Wu et al. (6956972), (hereinafter referred to as "Wu") in view of

Chen et al. (6798364), (hereinafter referred to as "Chen").

Regarding claims 21, 29-30, and 38, Wu discloses an apparatus that

relates to motion compensation based video coding (Wu: column 1, lines 13-16).

This apparatus comprises "receiving a plurality of transform blocks" (Wu: figure

9), "converting each of the blocks into bit-plane encodings" (Wu: figure 9,

wherein the bit-plane VLC performs converting), and "transmitting each

encodings of the bocks in order" (Wu: column 4, lines 59-67). However, this

apparatus lacks storing the bit-plane encodings prior to converting another block

as claimed. Chen teaches that prior art computing systems introduce

mispredicted branches which cause processor slowdown (Chen: column 1, lines

45-53). To help alleviate this problem, Chen discloses "storing each of the bit-

plane encodings in a memory" (Chen: column 5, lines 33-36). Therefore, it

would have been obvious to one having ordinary skill in the art at the time the

invention was made to take the apparatus disclosed by Wu and add the storage

taught by Chen in order to obtain an apparatus that operates more efficiently by

preventing processor slowdown.

Regarding claims 22 and 31, although not disclosed, it would have been

obvious to store the bit-plane from MSB to LSB (Official Notice). Doing so would

have been obvious in order to easily find a desired part of the stream.

Regarding claims 23, 32, and 40, although not disclosed, it would have been obvious for the encoding to include run length encoding (Official Notice). Doing so would have been obvious in order to compress the data for easier transmission.

Regarding claim 24, Chen discloses "storing each bit-plane encoding includes storing the encoding for each subsequently received block in locations following the encoding of a prior received block" (Chen: column 5, lines 33-36, wherein two bit planes are sequentially stored in memory).

Regarding claim 25, although not disclosed, it would have been obvious to discard each block after the transform process (Official Notice). Doing so would have been obvious in order avoid sending redundant data over a network.

Regarding claims 26 and 35, Chen discloses "each transform blocks corresponds to a fine granular scalability encoding" (Chen: column 1, lines 30-31).

Regarding claims 27 and 36, Wu discloses "the transform blocks correspond to a DCT" (Wu: figure 9).

5.   Claims 28 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (6956972), (hereinafter referred to as "Wu") in view of Chen et al. (6798364), (hereinafter referred to as "Chen") in further view of Lafe (6456744).

Regarding claims 28 and 37, note the examiners rejection for claim 21, and in addition, claims 28 and 37 differ from claim 21 in that claims 28 and 37 further require identifying the maximum transform coefficient. Lafe teaches that

there is a need for fast and effective compression (Lafe: column 1, lines 35-38).

To help alleviate this need, Lafe discloses "identifying a maximum transform

coefficient within the block and determining the encodings for the block based on

the coefficient" (Lafe: column 17, lines 26-50). Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made

to implement the processing taught by Lafe in order to obtain an apparatus that

provides fast and effective compression.

6.   Claims 33-34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Wu et al. (6956972), (hereinafter referred to as "Wu") in view of Chen et al.

(6798364), (hereinafter referred to as "Chen") in further view of Monro (WO 98/37700).

Regarding claims 33-34 and 39, note the examiners rejection for claim 21,

and in addition, claims 33-34 and 39 differ from claim 21 in that claims 33-34 and

39 further require storing the bit plane encodings in a third location which is

between the first two locations. Monro teaches storing data in an interleaved

format, or between two locations (Monro: figures 2-3). Therefore, it would have

been obvious to one having ordinary skill in the art at the time the invention was

made to implement the storage taught by Monro in order to obtain an apparatus

that provides fast and effective memory access.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dave Czekaj whose telephone number is (571) 272-

7327. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJC

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